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UNIVERSITY OF ILLINOIS
REPORT OF THE

Bureau of Labor Statistics

FOR THE

Biennial Period Ending June 30, 1922

A. L. URICK, Commissioner

Published by
THE STATE OF IOWA
Des Moines





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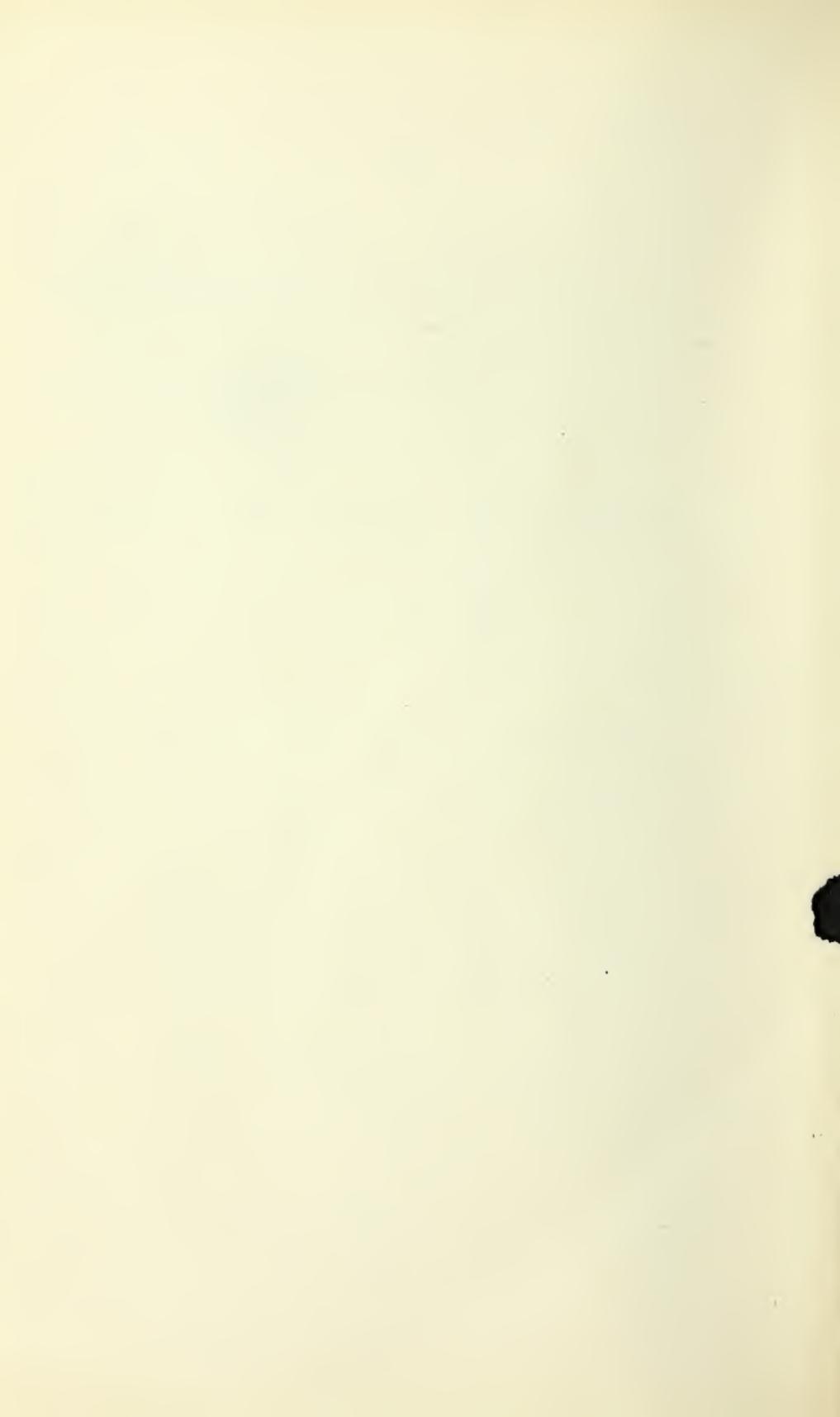
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LETTER OF TRANSMITTAL

HON. N. E. KENDALL, *Governor.*

SIR—In compliance with Section 2470, Chapter 8, Title XII, Supplemental Supplement to the Code 1915, I have the honor herewith to transmit to you the Twentieth Biennial Report of this department.

Very respectfully,

A. L. URICK,
Commissioner.

Des Moines, September 30, 1922.

BUREAU OF LABOR STATISTICS ADMINISTRATION

A. L. URICK.....	Commissioner
J. D. SEAMAN.....	Deputy Commissioner
H. H. BYE.....	Factory Inspector
F. T. CROCKETT.....	Factory Inspector
ELLEN M. ROURKE.....	Factory Inspector
JOHN E. NORDSKOG.....	Statistician
MAY DOUGLASS, succeeded by	
ESTHER MARTENS.....	Department Clerk
MARJORIE SHELLHORN	Stenographer
GEO. B. ALBERT.....	Free Employment Clerk
J. W. HOLMES.....	Sioux City Employment Office

REPORT OF BUREAU OF LABOR STATISTICS

In submitting this Twentieth Biennial Report of the Bureau of Labor Statistics, the plan adopted with the consent of the Executive Council, as provided by the Thirty-sixth General Assembly is followed. Under this plan a brief resume of the work of the bureau for the biennial period is given, while the complete statistical details are published in bulletin form; separate or directly related subjects only are thus published within the same bulletin, eliminating the expense of printing material in excess of the amount demanded for any particular feature of the bureau activities; also saving expense of postage in mailing bulletin desired instead of a volume containing in part subjects of no interest to the applicant.

The bulletins upon which report is in the main based are as follows:

Bulletin No. 8, Manufactures Statistics, year 1921; including Factory Inspection Report, biennium ending June 30, 1922.

Bulletin No. 9, Child Labor, biennium ending June 30, 1922.

Bulletin No. 10, Labor Organizations of Iowa. (Trade Union Statistics) for year 1921.

Bulletin No. 11, State Free Employment Service, biennium ending June 30, 1922.

In addition to these bulletins there was issued during the latter part of 1921 a manufacturers directory, giving statistical information of natural resources of the state, with certain other data of value in harmony with the intent of Section 2470 of the Code, as amended by the Twenty-ninth and Thirty-first General Assemblies.

This bulletin in addition to these statistics gives manufacturing industries by cities followed by a classified list of such industries, also railroad facilities and population of each city, thus showing our splendid railroad facilities, the great diversity of our manufactures and their distribution throughout the state; also rainfall and climatic conditions; our coal beds, farm products and other data useful in indicating to those of other states, Iowa's natural and developed advantages for location of establishments.

Bulletin No. 8, Manufactures Statistics, gives a detailed report of the activities of 3,350 establishments, classified by industries for state and counties in relation to capital invested, value of stock and raw materials used, value production, average number of employes

by sex, also smallest and greatest number employed during the year, with total and average wages paid. Other tables given include number of employes by classified industries during each month of the year, and of a specified date; also showing the average number of days in operation. These tables indicate clearly the regularity or irregularity of employment.

Another table gives the number of males, females and young persons under sixteen years of age receiving classified weekly wages ranging from \$3 to over \$30 per week, while still another gives the numbers of employes by sex working specified hours running from eight to twelve per day.

All of these tables are quite definitely summarized and analyzed so that all interested can more thoroughly digest the contents. These show, exclusive of railway shops for which no production value is given, a total of \$503,686,657, an average decline of 28.3% in value of production over the peak year of 1919, due partly to deflation of values and partly to lessened production, the result of industrial depression. This latter condition is indicated by a 21.3% less average employment for 1921 compared with 1919. The relation of wages paid to production remains the same for both years—12.2%.

The concluding pages of the bulletin are given over to the activities of the inspection work of the bureau. Four thousand one hundred forty-eight plants and buildings were inspected during the biennium (this does not include reinspections or checking up of former inspection), and 1,499 orders were given under the factory inspection and fire escape laws. During the prior biennium 2,536 orders were made in 4,206 establishments. This decrease in the number of orders can largely be attributed to the tendency of greater co-operation of employers, and the recognition that a safe plant is the more economic. Part of the decrease should, however, be charged to a lesser activity in industry due to prevailing conditions.

The most pleasing sign is the fact that orders for guarding of machinery and places of employment known as the most hazardous, show the largest per cent of decrease, although the protruding set screw, the nightmare of safety, has lately been increasing, due no doubt to rearrangement of machinery incident to increased industrial activity.

Bulletin No. 9, Child Labor Statistics, includes age, sex, school grade, height and weight of children employed under the state work permit system.

These records show a decided falling off in the number of children employed in comparison with former biennium, the figures are for biennium ending June 30, 1920, 7,469; ending June 30, 1922, 3,825.

This decrease is due partly because of industrial depression, and also because of the federal act recently declared unconstitutional. The penalties of this act were so severe that great numbers of employers adopted the rule of not employing anyone under sixteen years of age. This was found no great inconvenience on account of the number of adults seeking employment.

Bulletin No. 10, Labor Organizations, shows the number of such organizations by location, craft and sex; also wage schedules, number of strikes and lockouts with number of employes involved and tabulation of legislative needs as reported by secretaries of locals.

The report shows 1,002 organizations in existence December 31, 1921, with a membership of 70,332, while the figures of December 31, 1919, were locals 975, membership 81,404, an increase for the last period of 27 locals, and a decrease of 11,072 in membership. This decrease is claimed to be the result of lessened employment and consequent arrearage of dues, it being the custom in the main to report members in good standing only.

Bulletin No. 11, State Free Employment Bureau. The activities of this bureau have been conducted under most peculiar circumstances, the statutes providing for the employment of one chief clerk, with expense for printing, stationery and other incidentals to be paid out of the general fund. A bureau of this kind under conditions as they have existed for some time past, could not function for an indefinite period in a way to be of any distinct service.

Prior to the war an agreement was entered into between the State of Iowa and the United States Department of Labor, providing for a co-operative bureau, the Federal end for a while being conducted through the Immigration Department, but later with the creation of the United States Employment Service, the activities were transferred to that department. During the war the Federal Department contributed a considerable amount of money for the operation of the service in the State of Iowa, expended, however, under the direction of the Commissioner of Labor, who, under the Iowa law, is made the head of the employment service. To in part meet the Federal allotments, under advice of the State Council of Defense, the Governor allotted approximately \$20,000 out of emergency funds for the state to carry on its part of the work. Following the close

of the war this fund was no longer available, and congress also cut down the appropriation for the Federal service to a very limited sum, so that there was left for the state simply the old provision of salary for a chief clerk, and incidental expenses to be paid out of the general fund, while the United States service for a time functioned only in the furnishing of office supplies and franking privilege.

After passing through several additional phases, at the close of the fiscal year ending June 30, 1920, the Federal government was giving an allotment to Iowa of \$200 per month, to be used in any way considered for the best interests of this service. Polk county, through its board of supervisors, was furnishing a room in the county court house, which is centrally located for the conduct of an office. The state was providing telephone service and one chief clerk, while the \$200 given by the Federal Department was divided between two women clerks for the conducting of this office and taking care of the clerical work incident to the handling of reports from the Iowa City office for teachers only, and connected with the State University, and a small office at Creston, Iowa, now conducted through the farm bureau agent of that city.

The migration of harvest labor made it imperative that this floating labor be kept on the move at Sioux City, which is the second great gateway of entry into the harvest belt, so that an arrangement was made between the Federal department and the State department, under which they furnished an additional man for a period of two months in the Des Moines office while the chief clerk of the State bureau, familiar with this type of work, was placed in charge of the Sioux City office for July and August, 1920. This same arrangement was made for the period of July and August, 1921. During that time the great need for a permanent office became so apparent that the matter was taken up with the Retrenchment and Reform Committee, that committee appropriating \$150 per month, beginning September 1, 1921, and ending June 30, 1922. The United States Employment Service agreeing to pay telephone bills and furnish one clerk; also to provide rental if necessary. The city commission of that city, however, recognizing the need of such office donated the room for the service. In the meantime the arrangement with the State University of Iowa City was discontinued, the date of such discontinuance being June 30, 1921.

Under the provisions above indicated, there were placed in employment during the two year period 29,269 males and 10,099 fe-

males, or a total of 39,368. The Sioux City office during fifteen months of operation placed 10,696, Des Moines, 27,168, Creston, 758, and Iowa City, 746, this latter of teachers exclusive. Fourteen thousand two hundred one going to farms either as monthly farm hands or as farm laborers.

An additional activity of the Bureau of Labor originated January 1, 1922. During the industrial depression many reports got into circulation indicating a very much worse condition with relation to unemployment than actually existed within the borders of the state. No definite survey had ever been made to indicate actual conditions covering the respective industries. To overcome this defect, approximately five hundred employers of labor from diversified industries of the state were appealed to, to furnish the number of employes, male and female, upon pay roll for the last pay day of each month. Over four hundred of these are now kindly co-operating in this work, the result thereof being published in "Iowa Employment Survey," which gives actual figures upon which to base the employment situation, there being added to this, of course, the results of the employment service indicating the registrations for jobs and those desiring help; also the building activities as indicated by building permits and valuation of structures from the larger cities and towns. Pertinent remarks tending to show both present conditions and future outlook as seen by employers themselves are also included. This four page bulletin is published about the fifteenth of each month and now has a circulation of about eight hundred, many calls continually coming into the office to be placed on the mailing list.

RECOMMENDATIONS

The law creating the Bureau of Labor was enacted by the Twentieth General Assembly (1884). This original law made provision for investigation only, the Commissioner of Labor not having any authority to make orders for changes. In fact, could not enter any establishment without the consent of the management, but provision was made so that where such entrance was denied the commissioner could conduct his investigations by the taking of testimony from persons subpoenaed, and to whom he was given the power to administer oath.

The socalled factory inspection laws began with the Twenty-fourth General Assembly (1892) when the provision was made for seats for female employes in mercantile and manufacturing establish-

ments, to be used to such extent that the work engaged in may reasonably admit of.

The Twenty-ninth General Assembly (1902) was responsible for the first law relating to toilets and washing facilities. The same legislature also enacted the provisions relating to safeguarding machinery, and the provision for carrying off dust from emery wheels, emery belts and tumbling barrels. At the time of the enactment of these provisions very little had been done in other states with relation to these matters. The industries of Iowa, both in manufacturing and mercantile lines, were decidedly limited, and the industries of the nation had not taken on the modern methods so necessary to present day production.

Many features of industry now recognized as being extremely hazardous are either not mentioned in the safety laws or else in such a trivial way that no real benefit can come from them. In the main the progressive and successful employer is in advance of the law in these particulars because of the recognition of economy and efficiency as a result of their introduction. In the main this progressive type can only be benefited by bringing to his attention the latest and best practices. There is always, however, a small portion of the employers who cannot bring themselves into harmony with advanced ideas, and for these legislation is needed as a means of protecting the safety and welfare of employes, and of course, of the state in the final analysis. Two plans of perfecting these laws can be followed. Practically all of the great industrial states have adopted the plan of delegating to the head of the labor department certain duties in the drafting of codes for the particular line of industry or service, these codes to be arrived at through representatives of employers, employes and technical experts in the particular line considered with a view of fixing the minimum standard for the occupation. This plan has been approved by the highest courts of the respective states adopting the plan.

It is recognized that a legislator cannot have a full knowledge of details of all lines of industry, thus making it impossible for him to definitely fix standards. Even if the legislator were qualified in every particular, it is recognized that industrial conditions and methods change so rapidly that legislative action can not keep up with safe requirements and that therefore considerable harm might be done in the interim.

But if this plan is not to be adopted then certain changes should be made in the laws relating to the bureau, among these as follows:

Boiler Inspection. Attention has upon several occasions been called to the need of boiler inspection, pointing out the fact that the only statute relating to boilers is an enactment of the Fifteenth General Assembly, and which provides that boilers shall be equipped with a steam gauge, safety valve and water gauge, so that excepting these three particulars no part of a boiler is subject to inspection on the part of the state. The only inspection service is that by casualty insurance companies, and when a boiler is rejected by them as too unsafe for them to assume responsibility of insurance, the owner thereof may continue to operate it at his own sweet will and thus jeopardize not only the lives of those in the establishment but also those within the danger zone outside, and certainly endangering adjoining properties.

There should be enacted a code fixing standards both for construction, installation and maintenance of boilers and high pressure tanks, such as has the support and encouragement of all of the better type of boiler manufacturers, and based upon a code drawn by the American Society of Mechanical Engineers. Such code should fix a minimum standard of safety and should provide a definite standard for qualifications of inspectors, who should hold a certificate of competency from some examining board connected with the labor department. Under this plan the insurance boiler inspectors, which in the main are selected for competency, could inspect the same as they are now inspecting, their companies making a report of each inspection to the bureau to indicate that they are meeting the fixed state standards. Insurance companies in other states are doing this. Boilers coming within the provisions of the law should be registered with the department of labor, which should have a competent boiler inspector, holding a certificate from the board of examiners, and it should be his duty to examine all boilers not inspected by the insurance companies, and he should further look after all of the boilers rejected by the insurance companies to bring them either within the provisions of safety or condemn their use. This plan would bring the state within the same standards provided by other industrial states, and if not followed will mean that within a few years Iowa will find itself with great numbers of boilers not meeting the safety requirements of other states, and which are even now sold in Iowa because of there being no fixed standards.

Elevators. It is rather surprising that the elevator is mentioned in the code of Iowa in the child labor law only, making the operation thereof a prohibited employment to the child under fourteen

years of age. The only reason that the elevator in any way comes under the provision of the Iowa safety laws is that at some time the courts have held an elevator to be a dangerous machine within the meaning of the factory inspection law. But the law provides for guarding only, so while there is no doubt but what proper gates, the proper housing of the side of elevator, the covering of the top of elevator as a protection against falling objects, and toe boards to prevent the shearing of feet and hands comes under the provisions of the inspection law, there is the gravest doubt whether any part of the machine proper comes under the law's provision, and yet it is generally recognized that elevators when improperly constructed and maintained are a decidedly dangerous device. Other states have provided for a code, either by direct legislation, or by the course mentioned in the beginning of these recommendations under powers and authorities granted to the head of the labor department for the fixing of a definite code. With the magnitude of increase in their use incident to the general growth of the industries of Iowa some provision is necessary.

Lighting. The statutes of Iowa in no way mention lighting of shops and other establishments where work is being done, and yet it is generally recognized that great numbers of accidents can be directly traced to poor lighting. While no data in Iowa is available to prove this statement, yet insurance companies who have elsewhere made investigations along this line indicate that at least ten per cent of all accidents are caused directly by poor lighting, and that in approximately fourteen per cent poor lighting is found as a contributory cause. In modern newly constructed buildings erected for the particular industry housed therein, adequate provision is usually made for proper daylight lighting, but unfortunately industry has not yet sufficiently developed to have all industries housed according to the best requirements. Even in the buildings especially constructed and in which provision is made for daylight lighting, when artificial lighting becomes necessary it is often poorly distributed, and because of improper placement causes a glare of a nature to induce rather than prevent accident; besides, does great injury to eyes so necessary to be conserved. This matter should be properly treated along the lines indicated in other recommendations.

Building Code and Inspection. In this particular Iowa is also lacking, and considering the importance of the industry and the great number of men employed therein, should be taken care of. Not only as a means of protection to the workman, but in the in-

terest of the responsible building contractor, who, because of his responsibility, is required to use up-to-date methods to safeguard employes, while the irresponsible contractor who does not even carry casualty insurance is enabled on some jobs to figure upon a lower basis because he can shift the burden of accident hazard upon the workmen. In an industry employing between forty and fifty thousand persons during the year, it would certainly seem that the state should interest itself with relation to their safety, and to the same extent that they are now interesting themselves in the factory employee.

Time after time requests come into this office for inspectors to examine into the safety of buildings, yet there is no provision under the laws of the state for the inspection or condemnation of any building except that the Fire Marshal may condemn a building because of its being a fire hazard. It is true that authority is delegated to cities and towns to regulate by ordinance building construction and maintenance, but where this is not done by them there is no one with any authority to provide for safe buildings regardless of what use may be made of them. In this particular the state should make some provision for a minimum standard with which all cities now having authority should comply, not taking from them, however, the right of fixing standards for safety beyond such minimum. This provision of safety should be made especially applicable to places of amusement, schools, and buildings used for public gatherings.

Ventilation and Sanitation. Better provision should be made for ventilation and sanitation of factories, work shops, etc. This is especially true because of the great changes in methods of doing work. As one instance of this, prior to the war the use of benzol was very limited. In fact, it was not made in sufficient quantities to bring it within a price at which it could be used. The war, however, has changed this. All the derivatives of coaltar products—benzol, toluol and others, were made necessary to produce war material. With the close of the war these factories having been established, a market was found necessary and it was found that benzol was one of the best solvents for rubber so that it is now being used extensively in the manufacture of rubber tires. It is also being used to a considerable extent for mixing with gasoline for motor car power. It is displacing naphtha in connection with drying paints, varnishes and shellac; in dry cleaning and dyeing plants as a substitute for gasoline; in fact, is gradually displacing naphtha, benzine

and gasoline in many lines. Much has recently been said of the deathly effect of gasoline fumes in closely confined places, but benzol is far more deadly and has already taken some toll of life within the state, and yet its deathly effect can in the main be provided against by proper regulations.

The use of lead is vastly increasing in industry, bringing with it its long list of discomfort, ill-health and even death. To indicate this, investigation made in Pennsylvania in 1913 indicated that 17.9% of those engaged in making storage batteries were affected with lead poisoning, and the storage battery industry is daily increasing in Iowa. It should be made the business of the state to see that the best practices are followed to insure the life and health of employes. This is only one of a great number of industries in which employes are subject to this occupational disease. The painters' trade is especially subject to it. Several years ago an examination was made of one hundred painters in the city of Chicago, and 59% were found affected. In an investigation made in another city covering 304 painters, 53% were found subject. The printing and plumbing trades are also subject to it although not in the same general degree as painters. The linotype machine has vastly decreased the lead hazard of the printer but he is still subject where proper precautions are not taken.

Summing it all up it may be said that modern industry conducted under modern methods is productive of greater hazards, all of which may, however, be eliminated by proper precautions, and these precautions should come now so that Iowa industries as they increase, as increase they surely will, will follow the best practice from almost the beginning, and will not have their plans and methods interfered with at a later date by efforts on the part of the state to correct injurious practices that should have been corrected in the beginning.

Free Employment Bureaus. A brief summary is given of the activities of the Free Employment Service, under direction of the bureau. Also citing some of the difficulties under which the service has thus far been maintained. If the service is to be continued then the legislature should make definite provisions for its continuance. The present expense for running the Des Moines and Sioux City offices, including salaries and telephone, is \$3,780 per annum. The actual expense to the Federal Government, inclusive of salaries and telephone bills but exclusive of postage, blanks, etc., is \$3,894 per annum. To have a well balanced employment service there should be

added from two to three other offices so as to make a better distribution throughout the state, and an amount should be appropriated somewhere from twelve to fifteen thousand dollars per annum to be used subject to approval by the Executive Council. Such an amount would place the service upon an efficient basis and would remove it from all doubts as to the probable continuation of Federal aid.

Section 4999-a1. The code revision committee has proposed a number of important amendments to the laws as they now exist, and if their reports are not acted upon at this session of the legislature the following changes are suggested. Section 4999-a1 provides for separate water closets and privies between sexes with separate entrances, for manufacturing establishments, work shops and hotels in which five or more persons are employed, but makes no provision for mercantile establishments. This provision of the law is evidently to protect sex privacy, which should at least be as well protected in mercantile establishments as in any of the others indicated.

Administration and Needs. There is the utmost need for at least two additional inspectors in the department, one man and one woman. With an additional inspector (man) the state could be subdivided so as to make the expense but very little higher than now because of getting more compact districts. Of course, there would be some additional expense because of travel maintenance. As to the additional woman inspector, with the great increase of women in industry it is impossible for one person to look after matters in the way contemplated by the code. If such additional inspectors are provided for, the salaries should be upon a graded basis, starting with a fixed minimum for the first six months or one year service, afterwards on the same basis as is being paid to other inspectors. This bureau is allowed \$4,000 per annum for travel expense. During all biennial periods there has been a considerable unexpended balance reverted to the general fund. Because of the high railroad fare and other increased costs of maintenance for the biennial period ending June 30th, there reverted approximately \$750, this being the smallest amount for any period during our incumbency. Taking into consideration that there has been a slight decrease in these necessary costs, it is believed that with a change in the present appropriation of \$4,000 per annum to say \$4,500 per annum, that all of the additional expense, exclusive of salaries for the two additional inspectors, could be taken care of.

EXPENSE OF THE BUREAU OF LABOR STATISTICS

(For the Biennial Period, July 1, 1920, to July 1, 1922)

Salaries, for biennial period.....	\$34,578.37
Traveling and hotel expenses.....	7,248.75
Supplies and postage:	
Paper	\$ 55.78
Envelopes	1.06
Pencils, pens, etc.....	14.31
Baskets, brushes, brooms.....	4.57
Books	4.30
Rubber bands	2.46
Paste, ink, etc.....	16.38
Sundries	82.89
Postage and stamped envelopes.....	1,030.94
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Total for supplies and postage.....	\$ 1,212.69
Printing, binding, engraving and paper stock.....	3,018.34
Telephone and telegraph.....	370.67
Express, freight and cartage.....	3.20
Furniture and stores.....	273.89
Miscellaneous expenses, supplies, repairs, etc.....	27.60
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Grand total for biennial period ending June 30, 1922..	\$46,733.51

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